



Ball-Foster
Glass Container Co., L.L.C.
A Saint-Gobain Company

1509 South Macedonia Avenue
Muncie, Indiana 47302-3664
Reply to: P.O. Box 4200
Muncie, Indiana 47307-4200
Tel. 765 741-7000
Fax 765 741-7012

APR 29 1999

April 23, 1999

VIA FAXSIMILE & US MAIL

CONFIDENTIAL-FOR SETTLEMENT PURPOSES ONLY

Mr. Jay M. Willenberg, Senior Air Pollution Engineer
Puget Sound Air Pollution Control Agency
110 Union Street, Suite 500
Seattle, Washington 98101-2038

**Re: Seattle Plant – Update Report
Title V Permit Application PSAPCA Request for Additional Information**

Dear Jay:

This letter is intended to be Ball-Foster Glass Container Co., L.L.P. ("BFG") draft response to your letters dated February 10, 1999 and March 11, 1999, in which the Puget Sound Air Pollution Control Authority ("PSAPCA") requested additional information regarding Ball-Foster Glass Container Co.'s ("BFG") Seattle, WA facility. The information, as I understand it, is needed to supplement and/or more fully understand the information BFG provided in its Title V permit application.

This letter is not intended to respond to the "enforcement action" that is currently pending between the PSAPCA and BFG. As such, nothing in this letter is to be construed as an admission of liability by BFG and the PSAPCA is hereby precluded from using any statements in this letter against BFG in any enforcement action unless the information is obtained from a source independent of this letter.

As I indicated in my March 19th letter to you, it appears that your March 11, 1999 letter requests more information than your February 10, 1999 letter. This may be because the PSAPCA is asking for information to supplement BFG's Title V permit application and to address issues that have been raised in the enforcement action.

I. PROCEDURES AND SCHEDULES FOR GLASS MOLD SWABBING OPERATIONS

During the search of our records on mold swabbing, BFG found that this issue has been a concern for many years. In 1993 following a meeting between upper management from Ball-Incon and compliance officials from PSAPCA, it was agreed that BFG would conduct trials on an automatic system for the application of a mold lubricant. The trials were conducted at our Lincoln plant because they had a Tandem machine equipped with

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an electronic controller which was comparable with the controller used by Graphodial system.

Initially, the trials were on two (2) sections of the Tandem machine and the results were encouraging. Since the trials worked on BFG's electronically controlled machines, management decided to buy enough equipment to control six sections, or one-half of a Tandem machine. A Tandem machine, which is actually two six section machines, can run the same item on each of the six sections so that BFG had the ability to provide a better comparison of manual swabbing versus electronically controlled automatic mold swabbing.

The trials continued through the year (1993) on many different sizes and shapes of bottles. The results indicated that the system would work, but that there was no measurable reduction in material usage or improvements in visible emissions. The trials were curtailed and shortly thereafter, the Graphodial company went out of business.

As BFG previously mentioned in our March 19th correspondence, BFG's Seattle facility uses two mold lubricants. The Material Safety Data Sheets ("MSDS") for the two compounds is attached hereto. Please note that these compounds have very low vapor pressures (less than 0.1 mmHg @ 100 degrees Fahrenheit), and flash points greater than 320 degrees Fahrenheit. Accordingly, these compounds are not volatile compounds.

The application of the mold swab compounds will vary depending on the type of process involved in making the bottle and other parameters, such as the size, and shape of the bottle and glass color. For example, small items will require mold swabbing every 15 to 20 minutes, while larger items will have to be swabbed every 25 to 30 minutes.

BFG will provide you with the actual amount of materials it used in 1998 in its final submittal, which is due on or before May 31, 1999. At that time, BFG will also identify any listed toxic substance in Regulation III, section 1.11. BFG's preliminary analysis indicates that the emissions are very insignificant and well below the Acceptable Source Impact Level ("ASIL") in Appendix A.

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II. COMPLIANCE PLAN

As BFG stated in its March 19th letter, it appears that at least one of the items you requested, a "compliance plan," requests information that is related to the enforcement action. It is BFG's position that a "compliance plan" is not required to be submitted as part of its Title V permit application. Despite BFG's view that a "compliance plan" is related to the enforcement action, BFG believes that the information relating to the "parameters" that may be measured, as set forth in section III., *infra*, will address that issue and give the PSAPCA the comfort level they need to insure that BFG will be in continual compliance with the terms and conditions governing the operation of its facility.

III. EVALUATION OF FURNACE OPERATING PARAMETERS

Attached hereto are several charts that attempt to measure an initial statistical evaluation of furnace operating parameters in an effort to "insure" that the entire facility is in compliance with its PM10 emission limit.

Rather than explain the charts and the evaluation, I think it would be more productive to discuss the charts during the conference call I have requested below.

IV. OPERATING PROCEDURES FOR FURNACE OPERATION

I have also attached a draft "check list" of standard operating procedures for furnace operation. Again, rather than review each item on the list, I think we should discuss the items during our conference call.

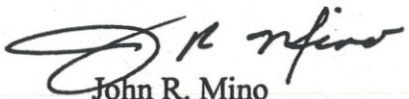
Finally, BFG would like to schedule a conference call to discuss the issues in this letter, and specifically to discuss the PSAPCA's response and reaction to the issues. BFG wants to review the charts and documents attached hereto with the PSAPCA and make sure that any questions the PSAPCA may have are answered before BFG submits its final letter on May 31st.

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Accordingly, after you have had an opportunity to review this letter and the attachments, please call me, or have Laurie Halverson call Lauren Alterman, to arrange for a conference call.

Sincerely,



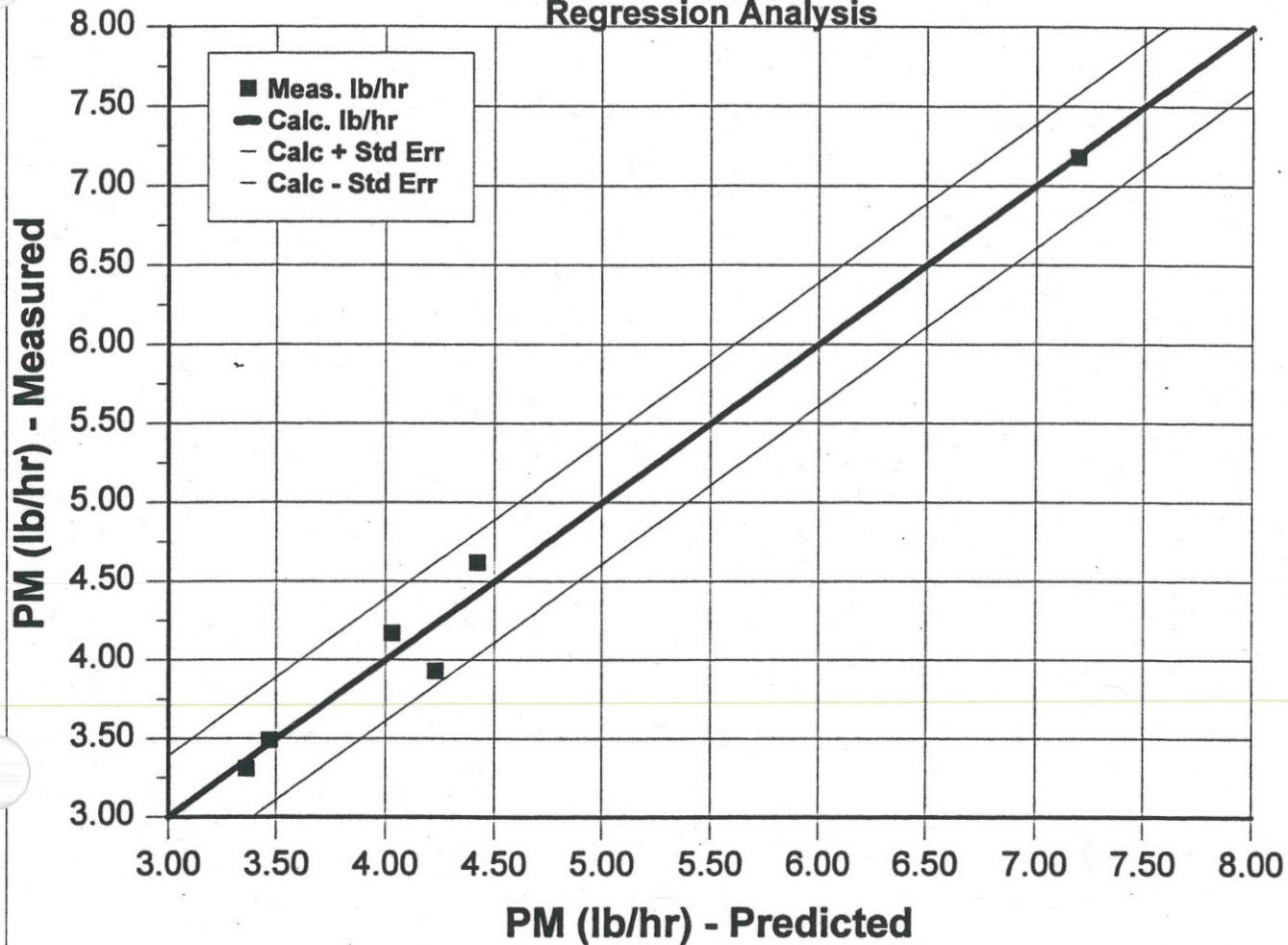
John R. Mino
Senior Environmental Engineer

cc: F. W. Glinka
K. B. Towne
M. C. Gridley
G. E. Hughes
A. J. Cappellino
Dave Knight
Lauren Alterman - SGC

DRAFT

Seattle #4 Furnace Particulate Emissions

Regression Analysis



$$(\text{Pull} * 0.049) + (\% \text{Cullet} * -0.016) + (\text{KWH} * -0.0024) + (\text{Gas} * 0.000002) + (1.534) + (+/- 0.39) = \text{PM (lb/hr)}$$

Seattle #4

Regression Output:

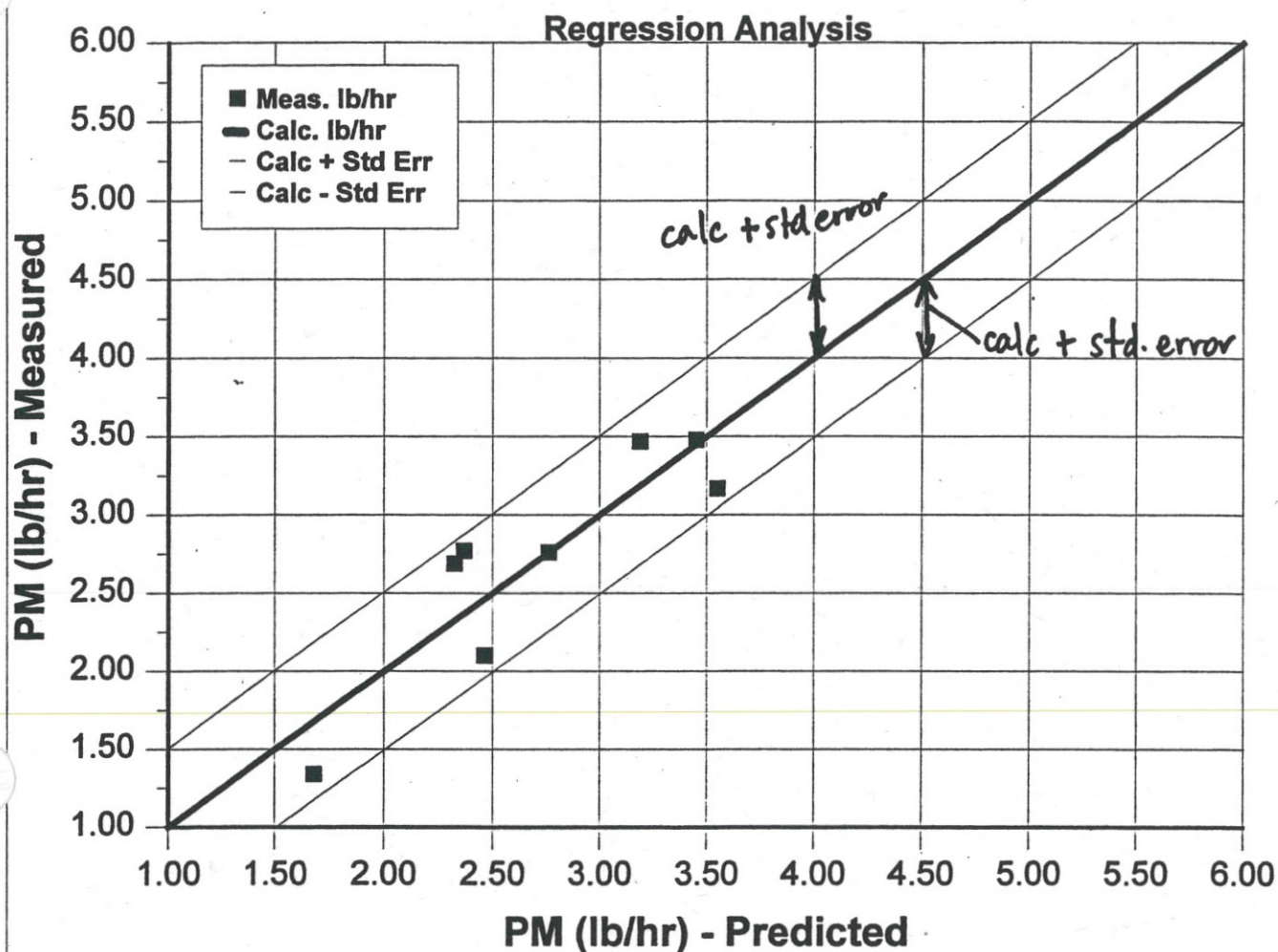
Constant	1.5343744
Std Err of Y Est	0.38984
R Squared	0.9848808
No. of Observations	6
Degrees of Freedom	1

	<u>Pull</u>	<u>% Cullet</u>	<u>KWH/hr</u>	<u>CFH Gas</u>
X Coefficient(s)	0.0485568	-0.016014	-0.002376	0.0000017
Std Err of Coef.	0.0244886	0.0134983	0.0003361	0.0000964

Test data 1993-98

DRAFT

Seattle #5 Furnace Particulate Emissions



$$(\text{Pull} * -0.016) + (\% \text{Cullet} * 0.023) + (\text{KWH} * 0.0008) + (\text{Gas} * 0.0002) + (-1.472) + (+/- 0.51) = \text{PM (lb/hr)}$$

Seattle #5

Regression Output:

Constant	-1.472402
Std Error of Y Est	0.506001
R Squared	0.7887687
No. of Observations	8
Degrees of Freedom	3

	<u>Pull</u>	<u>% Cullet</u>	<u>KWH/hr</u>	<u>CFH Gas</u>
X Coefficient(s)	-0.016364	0.0225532	0.0008326	0.0002478
Std Error of Coef.	0.0142512	0.0182455	0.0004339	0.0000858

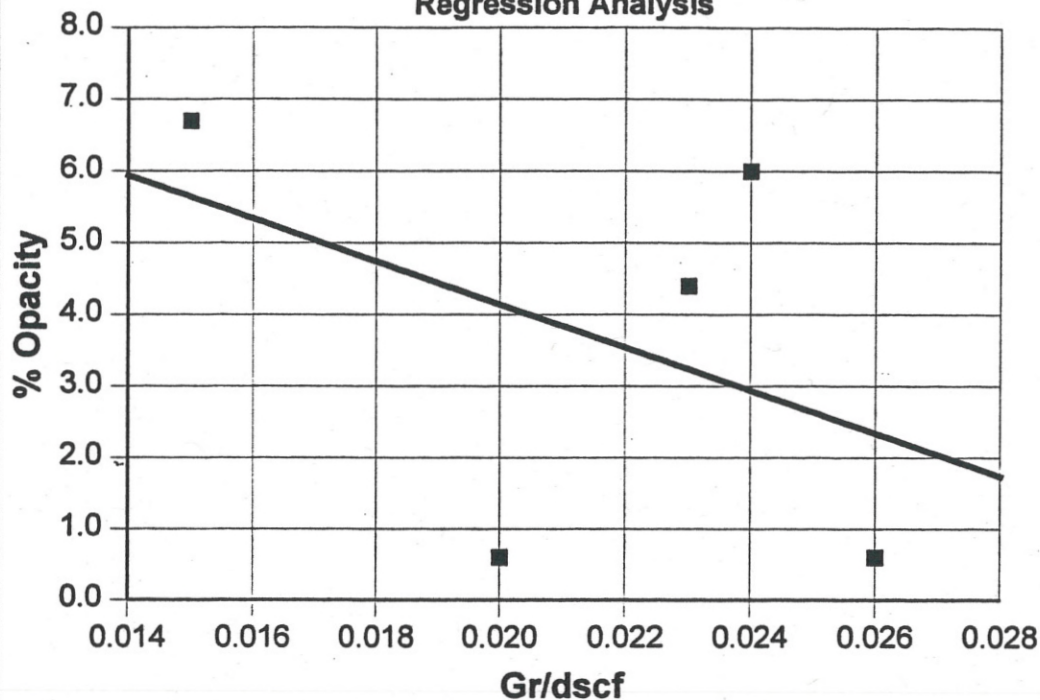
Test data 1994-98

DRAFT

Seattle #5 Furnace

Opacity

Regression Analysis



$$\% \text{Opacity} = 10.1 + (-300.3 \times \text{gr/dscf}) \pm 3.0$$

Regression Output:

Constant	10.145902
Std Err of Y Est	3.021699
R Squared	0.1941635
No. of Observations	5
Degrees of Freedom	3

X Coefficient(s)	-300.2732
Std Err of Coef.	353.17964

TEST DATA
1994-98

opacity	Grain	lb/ton	lb/hr
6.7	.015	4.4	
.6	.02	.03	
4.4	.023		
6.0	.024		
.6	.026		

PRELIM. DRAFT



Check List

Standard operating procedures for Furnace operation

- Inspect burners, clean and adjust as needed
- Check pull rate and set fuel flow rate for optimum melting performance
- Adjust oxygen/fuel or air/fuel ratio for optimum energy performance
- Check reversal time and adjust as required
- Measure oxygen readings and record
- Visually inspect burner flames and adjust for optimum performance
- Check and adjust electric boosting as needed ←
- Check batch wetting and adjust as required
- Check batch handling and delivery system
- Check percent cullet usage and adjust as needed
- Check and record bridgewall and hot spot temperatures
- Check furnace pressure controls and adjust as required
- Check and adjust furnace exhaust damper as required

When is it
needed?
What dictates
usage?

4/16/99

MATERIAL SAFETY DATA SHEET

SPECIALTY PRODUCTS COMPANY
75 Montgomery Street
Jersey City, New Jersey 07302

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME.....: Kleenmold 197
PRODUCT CODE.....: G0105012
CHEMICAL FAMILY.....: Petroleum Hydrocarbons
FORMULA.....: Petroleum oil/graphite/sulfur

SUPPLIER:
Specialty Products Company

EMERGENCY TELEPHONE NUMBERS:
201-434-4700

2. COMPOSITION/INFORMATION ON INGREDIENTS:
HAZARDOUS INGREDIENTS

<u>INGREDIENT NAME</u> <u>/CAS NUMBER</u>	<u>EXPOSURE LIMITS</u>	<u>CONCENTRATION</u>
Petroleum-based severely hydrotreated Lubricating Oil CAS # 64742-52-5	TLV 5 mg/m ³ (as an oil mist)	
Acids, Tallow, Calcium Salts CAS # 64755-01-7	N/E	
Sulfurized Fatty Oil Esters CAS # 68153-71-9	N/E	
Graphite in Petroleum Oil Additive CAS # N/A	N/E	
Sulfur CAS # 7704-34-9	PEL 15 mg/m ³ (as a dust)	

3. HAZARDOUS IDENTIFICATION

HMIS RATING

Health: 1 Flammability: 1 Reactivity: 0 Protection: See Section 8

NFPA RATING

Health: 1 Flammability: 1 Reactivity: 0

EXPOSURE LIMIT FOR TOTAL PRODUCT: 5 mg/cubic meter for oil mist in
air, based on OSHA Regulation 29 CFR 1910.1000

EMERGENCY OVERVIEW

POTENTIAL HEALTH EFFECTS: Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which vary from person to person. As a precaution, exposure to liquids, vapors, mists, or fumes should be minimized.

ROUTES OF ENTRY: Possibly skin and inhalation.

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE: This product is judged to be neither a "corrosive" nor an "irritant" by OSHA criteria.

INHALATION: Possible aspiration hazard. Swallowing or induced or spontaneous vomiting may cause product to enter the lungs. (See First Aid Measures in Section 4)

SKIN CONTACT: Prolonged or repeated skin contact with this product tends to remove skin oils possibly leading to irritation and dermatitis.

EYE CONTACT: Product contacting the eye may cause irritation.

INGESTION: No information available from supplier.

CARCINOGENICITY: This product does NOT contain any ingredients identified as carcinogenic by IARC, NTP, or OSHA.

NTP: None

IARC: None

OSHA: None

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Unknown.

4. FIRST AID MEASURES

FIRST AID FOR EYES: In case of eye contact, flush with plenty of clear water for at least 15 minutes or until irritation subsides. If irritation persists, call a physician.

FIRST AID FOR SKIN: If on skin, remove contaminated clothing and wash skin thoroughly with soap and water.

FIRST AID FOR INHALATION: If overcome by vapor or smoke from hot product, immediately remove from exposure and call a physician. If breathing is irregular or has stopped, start resuscitation, administer oxygen if available. If overexposure to oil mist, remove from further exposure until excessive oil mist condition subsides.

FIRST AID FOR INGESTION: If swallowed, do not induce vomiting. Give water to drink. Call a physician immediately. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES:

FLASH POINT: 320°F (160°C) COC

FLAMMABLE OR EXPLOSIVE LIMITS (approximate percent by volume in air):
Estimated values: lower 1% upper 6%

EXTINGUISHING MEDIA AND FIRE FIGHTING PROCEDURES: Use water spray, dry chemical, foam, or carbon dioxide. A solid stream of water or foam may cause frothing. Use water to keep fire-exposed containers cool. Use self-contained breathing apparatus (pressure demand MSHA/NIOSH approved or equivalent) and full fire fighting turn out gear in fighting fires near or involving the product. Thoroughly decontaminate fire fighting equipment after use.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N/A

6. ACCIDENTAL RELEASE MEASURES:

SPILL OR LEAK PROCEDURES: Keep product out of sewers and watercourses by diking or impounding. Absorb with sand or inert material. Sweep or scoop up and remove. Prevent spread of spill. Advise authorities if product has entered or may enter sewers, watercourses or extensive land areas. Assure conformity with federal, state and local regulations.

7. HANDLING AND STORAGE:

HANDLING AND STORAGE PRECAUTIONS: Minimize breathing vapor, mist, or fumes. Avoid prolonged or repeated contact with skin. Remove contaminated clothing, launder before reuse. Remove contaminated shoes and thoroughly clean before reuse; destroy if oil-soaked. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water. Keep containers closed when not in use. Do not handle near heat, sparks, flame, or strong oxidants.

SHELF LIFE: Indefinite, provided material is kept sealed in original container away from extreme heat.

SPECIAL SENSITIVITY: Strong oxidants and extreme heat exposure.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

EYE PROTECTION REQUIREMENTS: Use splash goggles or face shield or safety glasses with side shields when eye contact may occur.

SKIN PROTECTION REQUIREMENTS: Use chemical-resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing which could result in prolonged or repeated skin contact. The use of gloves is recommended to avoid prolonged or repeated skin contact.

RESPIRATORY/VENTILATION REQUIREMENTS:

RESPIRATORY PROTECTION: Avoid breathing vapor, mist or fumes of decomposition products. Wear NIOSH/MSHA approved respiratory protection equipment when airborne exposure limits may be exceeded. Use filter, dust, fume or mist respirator type under misting conditions. Use can or cartridge gas or vapor respirator type under conditions exceeding TWA standard.

VENTILATION: (Always maintain below permissible exposure limits) Use local exhaust to capture vapor, mist or fumes, if necessary. Provide ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapor in air.

9. PHYSICAL AND CHEMICAL PROPERTIES:

PHYSICAL FORM:	Liquid
COLOR:	Black
ODOR:	Petroleum
BOILING POINT:	Wide range
MELT POINT/FREEZE POINT:	Not applicable
PH:	Not applicable
SOLUBILITY IN WATER:	Negligible
SPECIFIC GRAVITY:	0.87
BULK DENSITY:	7.3
% VOLATILE BY WEIGHT:	Nil
VAPOR PRESSURE:	< 0.1 @ 100°F (38°C)
VAPOR DENSITY:	>8 (AIR = 1)

10. REACTIVITY:

STABILITY: This product is stable and will NOT react violently with water.

CONDITIONS TO AVOID: Open flame, extreme heat.

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITIES: Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite or calcium hypochlorite, etc. as this presents a serious explosion hazard.

THERMAL DECOMPOSITION PRODUCTS: Precise decomposition product analysis is unknown. Proper ventilation will reduce the smoke and fumes that could possibly include carbon monoxide, oxides of sulfur and various polyaromatic hydrocarbons which may result from the incomplete combustion of all petroleum hydrocarbon products.

11. TOXICOLOGICAL INFORMATION:

ORAL (Acute)	N/E
DERMAL (Acute)	N/E
EYE	N/E
INHALATION (Acute)	N/E
CHRONIC, SUBCHRONIC, ETC.	N/E

12. ECOLOGICAL INFORMATION: Avoid product from entering sewers, watercourses or extensive land areas.**13. DISPOSAL CONSIDERATIONS:**

WASTE DISPOSAL METHOD: (Consult federal, state, or local authorities for proper disposal procedures) Assure conformity with applicable disposal regulations. Dispose of absorbed material at an approved waste site or facility.

EMPTY CONTAINER WARNING: Empty containers retain residue (liquid or vapor) and can be dangerous. DO NOT PRESSURIZE, WELD, CUT, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged, and returned to a drum reconditioner.

14. TRANSPORTATION INFORMATION: This product is not regulated by DOT.
- | | |
|--------------------------|---------------------------|
| D.O.T. SHIPPING NAME: | Compound or lubricant NOI |
| TECHNICAL SHIPPING NAME: | None |
| D.O.T. HAZARD CLASS: | None |
| U.N./N.A. NUMBER: | None |
| D.O.T. LABEL: | None |
| OTHER INFORMATION: | None |
15. REGULATORY INFORMATION: SARA section 313: This material is not known to contain any chemicals on the SARA Section 313 list at a concentration greater than 1.0% or carcinogenic chemical on that list at a concentration greater than 0.1%
16. OTHER INFORMATION: Toxic Substance Control Act (TSCA): all components in this material are included in the TSCA inventory.

PREPARED BY:

Raul D. Hernandez

DATE:

May/1994

TO THE BEST OF OUR KNOWLEDGE, THE INFORMATION CONTAINED HEREIN IS ACCURATE. HOWEVER, SPECIALTY PRODUCTS COMPANY ASSUMES NO LIABILITY WHATSOEVER FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION CONTAINED HEREIN. FINAL DETERMINATION OF SUITABILITY OF ANY MATERIAL IS THE SOLE RESPONSIBILITY OF THE USER. ALL MATERIALS MAY PRESENT UNKNOWN HEALTH HAZARDS AND SHOULD BE USED WITH CAUTION. ALTHOUGH CERTAIN HAZARDS ARE DESCRIBED HEREIN, WE DO NOT GUARANTEE THAT THESE ARE THE ONLY HAZARDS WHICH EXIST.

MATERIAL SAFETY DATA SHEET

SPECIALTY PRODUCTS COMPANY
75 Montgomery Street
Jersey City, New Jersey 07302

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME.....: Kleenmold 170
PRODUCT CODE.....: G0105008
CHEMICAL FAMILY.....: Petroleum Hydrocarbons
FORMULA.....: Petroleum oil/graphite/sulfur

SUPPLIER:
Specialty Products Company

EMERGENCY TELEPHONE NUMBERS:
201-434-4700

2. COMPOSITION/INFORMATION ON INGREDIENTS:
HAZARDOUS INGREDIENTS

<u>INGREDIENT NAME</u> <u>/CAS NUMBER</u>	<u>EXPOSURE LIMITS</u>	<u>CONCENTRATION</u>
Petroleum-based severely hydrotreated Lubricating Oil CAS # 64742-52-5	TLV 5 mg/m ³ (as an oil mist)	
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Sulfurized Fatty Oil Esters CAS # 68153-71-9	N/E	
Graphite in Petroleum Oil Additive CAS # N/A	N/E	
Sulfur CAS # 7704-34-9	PEL 15 mg/m ³ (as a dust)	

3. HAZARDOUS IDENTIFICATION

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Health: 1 Flammability: 1 Reactivity: 0 Protection: See Section 8

NFPA RATING

Health: 1 Flammability: 1 Reactivity: 0

EXPOSURE LIMIT FOR TOTAL PRODUCT: 5 mg/cubic meter for oil mist in
air, based on OSHA Regulation 29 CFR 1910.1000

EMERGENCY OVERVIEW

POTENTIAL HEALTH EFFECTS: Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which vary from person to person. As a precaution, exposure to liquids, vapors, mists, or fumes should be minimized.

ROUTES OF ENTRY: Possibly skin and inhalation.

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE: This product is judged to be neither a "corrosive" nor an "irritant" by OSHA criteria.

INHALATION: Possible aspiration hazard. Swallowing or induced or spontaneous vomiting may cause product to enter the lungs. (See First Aid Measures in Section 4)

SKIN CONTACT: Prolonged or repeated skin contact with this product tends to remove skin oils possibly leading to irritation and dermatitis.

EYE CONTACT: Product contacting the eye may cause irritation.

INGESTION: No information available from supplier.

CARCINOGENICITY: This product does NOT contain any ingredients identified as carcinogenic by IARC, NTP, or OSHA.

NTP: None

IARC: None

OSHA: None

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Unknown.

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VENTILATION: (Always maintain below permissible exposure limits) Use local exhaust to capture vapor, mist or fumes, if necessary. Provide ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapor in air.

9. PHYSICAL AND CHEMICAL PROPERTIES:

PHYSICAL FORM:	Liquid
COLOR:	Black
ODOR:	Petroleum
BOILING POINT:	Wide range
MELT POINT/FREEZE POINT:	Not applicable
PH:	Not applicable
SOLUBILITY IN WATER:	Negligible
SPECIFIC GRAVITY:	0.87
BULK DENSITY:	7.3
% VOLATILE BY WEIGHT:	Nil
VAPOR PRESSURE:	< 0.1 @ 100°F (38°C)
VAPOR DENSITY:	>8 (AIR = 1)

10. REACTIVITY:

STABILITY: This product is stable and will NOT react violently with water.

CONDITIONS TO AVOID: Open flame, extreme heat.

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITIES: Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite or calcium hypochlorite, etc. as this presents a serious explosion hazard.

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11. TOXICOLOGICAL INFORMATION:

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DERMAL (Acute)	N/E
EYE	N/E
INHALATION (Acute)	N/E
CHRONIC, SUBCHRONIC, ETC.	N/E

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EMPTY CONTAINER WARNING: Empty containers retain residue (liquid or vapor) and can be dangerous. DO NOT PRESSURIZE, WELD, CUT, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged, and returned to a drum reconditioner.

14. TRANSPORTATION INFORMATION: This product is not regulated by DOT.

D.O.T. SHIPPING NAME:	Compound or lubricant NOI
TECHNICAL SHIPPING NAME:	None
D.O.T. HAZARD CLASS:	None
U.N./N.A. NUMBER:	None
D.O.T. LABEL:	None
OTHER INFORMATION:	None

15. REGULATORY INFORMATION: SARA section 313: This material is not known to contain any chemicals on the SARA Section 313 list at a concentration greater than 1.0% or carcinogenic chemical on that list at a concentration greater than 0.1%

16. OTHER INFORMATION: Toxic Substance Control Act (TSCA): all components in this material are included in the TSCA inventory.

PREPARED BY:

Raul D. Hernandez

DATE:

May/1994

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